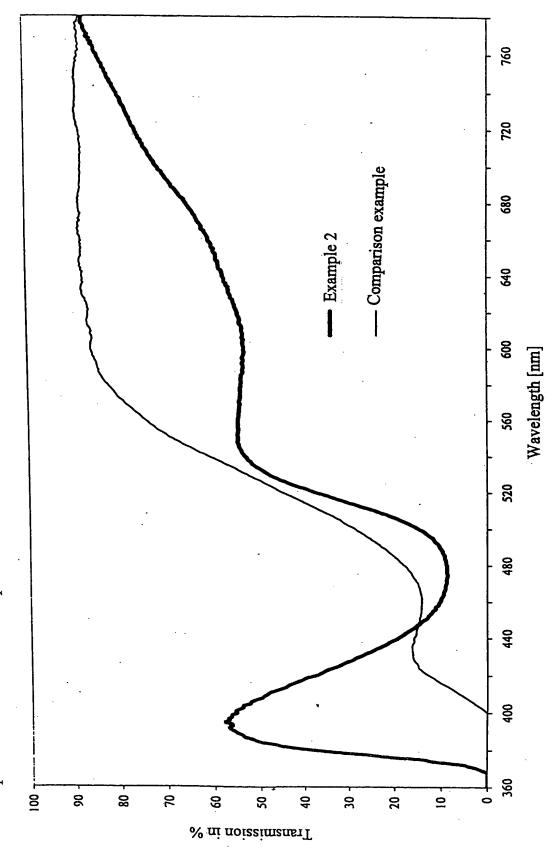
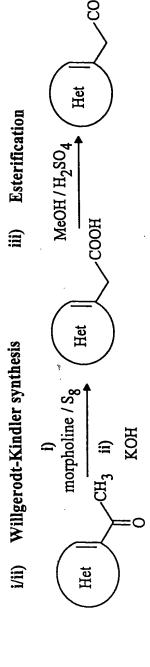


Spectral transmission comparison in the darkened state (planar glass 500 ppm; 23°C, 50 klux)

Fig. 1



Reaction Scheme



iv) Ester condensation
$$R_1$$

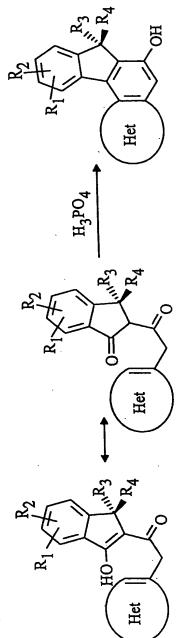
$$R_1 \xrightarrow{R_2} R_1$$

$$O = \begin{pmatrix} R_1 & R_2 \\ R_1 & R_2 \\ R_1 & R_2 \end{pmatrix}$$

$$Het \qquad Het \qquad Het$$

Continuation of Fig. 2

v) Intramolecular cyclization



vi) Pyran condensation

$$R_{1} \xrightarrow{R_{2}} R_{4}$$

$$Het \qquad Het \qquad$$

i/ii) Willgerodt-Kindler synthesis

Het

KOH

Het

Ester condensation

iv)

Het

$$\sim \frac{R_4}{\text{COOCH}_3} + \frac{10}{\text{KOMe}} = 1$$

Het

) Intramolecular cyclization

vi) Pyran condensation